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CONTENTS.

ORIGINAL LECTURES:

ABSTRACT OF A CLINICAL LECTURE ON CATARRHUS SUFFOCATIVUS NEONATORUM. By Alois Monti, M.D. 193

ORIGINAL COMMUNICATIONS:

WRITERS' CRAMP: ITS SYMPTOMS AND TREATMENT. By George M. Beard, M.D. . 194

TWO CASES OF MYALGIA FOLLOWING CONTUSIONS. By J. C. Wilson, M.D. . . . 199

NOTES OF HOSPITAL PRACTICE:

EPISCOPAL HOSPITAL—Service of Dr. John H. Packard: Reported by Oliver Roland, M.D.: Trephining for a Compound Depressed and Impacted Fracture of the Skull—Compound, Depressed, Non-Impacted Fracture of the Skull 201–203

TRANSLATIONS:

Origin of Phosphate of Calcium eliminated by the Intestines and Kidneys; Therapeutic Value of this Substance—Injections of Hot Water in Uterine Hemorrhage—Effects of Wounding the Cervical Sympathetic—New Abortive Treatment for Anthrax 203, 204

EDITORIAL:

THE LAW OF LIBEL 205
THE LATE PROFESSOR CARSON . . 206–208

LEADING ARTICLES:

FUNCTIONS OF THE BRAIN.—I. . . 209–211

CORRESPONDENCE:

MEDICAL MATTERS IN NEW YORK . 211–213

REVIEWS AND BOOK NOTICES:

Tablets of Anatomy and Physiology. By Thomas Cooke, F.R.C.S., etc. 213
The Electric Bath: its Medical Uses, Effects, and Appliances. By Geo. M. Schweig 213
Epitome of Skin Diseases, with Formulæ, for Students and Practitioners. By Tilbury Fox, M.D., etc., and T. C. Fox, B.A., etc. 213

GLEANINGS FROM EXCHANGES:

Sudden Death from Embolism—Acute Idiopathic Peritonitis in Children—On the Radical Cure of Hernia—Nitric Acid Injections after Lithotrity . . 214

MISCELLANY:

Artistic Pursuits among the English Medical Profession—Optical Delusion—Chloral Cream—A Warning to Good Husbands—Medical Qualification of Women—Hydrophobia communicated by Non-rabid Dogs and Cats—Tetanus; Nerve-Stretching; etc. . 215

NOTES AND QUERIES:

A Picture-Impostor—Homœopathy—Maternal Impressions 216

ARMY NEWS:

Official Changes from January 14 to January 27, 1877 216

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PHILADELPHIA MEDICAL TIMES.

PHILADELPHIA, FEBRUARY 3, 1877.

ORIGINAL LECTURES.

ABSTRACT OF A CLINICAL LECTURE ON CATARRHUS SUFFOCATIVUS NEONATORUM.

Delivered at the Allgemeine Poliklinik, Dec. 19, 1876.

BY ALOIS MONTI, M.D.

Reported by C. W. DULLES, M.D.

CATARRHUS suffocativus neonatorum is a disease which occurs most frequently in the spring and autumn, at times when the proper heating of rooms is most difficult of management. It is sometimes caused by a child being delivered in a cold room, or being chilled in a bath, or in a walk, or while a room is being aired.

But, from whatever cause it arise, its course is a most fulminant one. Suddenly there appears fever, which in an hour may run up to 39°, 40°, 41° (C.), and even higher; then a dry and frequently repeated cough sets in, with some dyspnœa, which in a few hours is evidenced by the bluish tinge of the skin and the soporific condition of the little sufferer. The dyspnœa proceeds until all the muscles of respiration are called into play in the attempts to fill the lungs with air. Cyanosis becomes more marked; the lips, the skin, and the nails become blue and cold. Inspiration and expiration are sharp and quick; the lower part of the thorax and the epigastrium are depressed with every inspiration. In the first twelve hours there is usually only a dry, suffocative cough, with hurried respiration and a constant tendency to asphyxia, which may appear every half- or quarter-hour and last two or three minutes, and in any such attacks the child may die. These do not pass off of themselves; they demand the interference of medical skill. Later, fine whistling râles make their appearance, with a moister cough and less of it; then, with the exhaustion of the child and the further impairment of its respiratory apparatus, come increasing coldness of the surface, asphyxia, convulsions, and death.

Children attacked with this disease very rarely recover. If recovery is to occur, the fever declines, the cyanosis lessens, the breathing becomes easier, and gradually all the symptoms abate, until in four or five days the child is out of danger.

Such a result, however, is one of the rarest occurrences, and in every case the prognosis must be the most reserved that is possible, and the parents must be warned that death is the most likely outcome of the disease.

The treatment must be symptomatic. This is no case where a physician can give a prescription and go away, saying he will call again in the evening. If he does, he will probably call upon a corpse. He must himself remain with the child, or leave a thoroughly fitted assistant. There is no disease in which the efforts of the skilled physician are more indispensable, or their value more plainly apparent to the family and satisfactory to his own consciousness. In no other does he seem more directly to rob death of its prey.

In the earlier stages, when the fever is high, quinine should be given, and cold baths of 24° or 18° (C.) every hour. Inhalations of turpentine should also be used. But the symptom which calls for the most energetic treatment is suffocation. When this threatens, respiration must be excited or produced by stimulants or artificial means. For this a cold douche upon the epigastrium may suffice once; but it cannot be relied on for repeated use; because, after its first application, with the recurring asphyxia its effect decreases, while it acts unfavorably upon the vital forces of the little patient. Sometimes immersion in a bath containing mustard-flour will excite the respiration, sometimes to this must be added the douche. But no stimulus acts more promptly than *catheterization of the trachea*. This must be done by taking a small tracheal tube or a soft catheter of about 24 millimetres diameter, which can be bent to the proper shape, and, while the left index-finger presses forward the base of the tongue, passing the end of the instrument, placed on the palmar aspect of the right index-finger, carefully just beyond the epiglottis, when by carrying the hand quickly in a direction upward and towards the patient and then downward and somewhat away from the patient, the end will slip safely into the trachea.

The effect of such a procedure is usually to excite a fit of coughing, in which a quantity of mucus is expectorated, and which is followed by respiration. Should

it not have this result, you may blow into the catheter, and, by this and acting mechanically upon the thorax, keep up artificial respiration until natural breathing is established. If this does not succeed, faradization, with one pole applied to the neck and one to the epigastrium, will sometimes excite respiratory movements. In every case the utmost patience and skill are required, and when they prove successful nothing can more contribute to the reputation of the physician and his own satisfaction. I have before, when speaking of the use of tracheal catheterization, mentioned a case where I saw a child apparently dead, whose death-certificate had been made out by the physician previously in attendance, and where the insertion of the catheter and artificial respiration, continued for more than half an hour, brought back life to the child. Another case has occurred in my practice, when, being called at two o'clock at night, I came with my catheter and electrical apparatus and worked until morning, when I had the satisfaction of seeing the beginning of a recovery which was afterwards perfected.

Remember, then, the necessity of the greatest patience and the highest skill you can command in the management of this disease.

Finally, let me remark that of emetics I have said nothing yet, because I think their use in most cases dangerous. In the case of a very strong child, at the first onset of dyspnœa an emetic may be used experimentally; but such a practice may do no good, might do much harm, and cannot be often repeated without disastrous results. The most important principle in all the treatment is to maintain by every possible means the strength of the child, and to meet the symptomatic indications.

Capacity of the Human Stomach.—The capacity of the human stomach is estimated at two quarts. The recent exploits of a couple of Londoners prove, however, an exception to the rule. By a careful estimation of the quantity of food and liquor taken during a so-called spree, it would seem that each stomach held two gallons, or else there were no pyloric valves. The prospects for soon settling the question by an autopsical examination were at last accounts quite promising.

ORIGINAL COMMUNICATIONS.

WRITERS' CRAMP: ITS SYMPTOMS AND TREATMENT.

BY GEORGE M. BEARD, M.D.,
New York.

Read before the New York Journal and Library Association, November 5, 1875.

PART I.—COURSE AND DIAGNOSIS.

THE disease known as writers' cramp is but one of many diseases, or rather symptoms of disease, resulting from over-use of groups of muscles in special directions. Thus, we have milkmaids' cramp, caused by over-use of the muscles of the hand in squeezing the udders of the cow; the sewing-girls' cramp, caused by excessive use of the muscles concerned in the act of inserting and drawing out a needle; the pianists' cramp, the result of striking with the fingers on the keys of a piano; the cramp of the *danseuse*, an affection of the muscles of the calf of the leg, caused by their much straining and over-use in standing on tip-toe and executing the delicate and rapid movements that so astonish audiences;* the hammer palsy, from protracted uplifting of the hammer, with limited up-and-down motions, which are required in some of the mechanic arts;†

* Dr. B. Schultz, of Vienna, has described three cases of dancers' palsy. In one of them the patient complained of very severe pain, beginning in the soles of both feet and extending to the calves of the legs. These pains increased in violence until the consciousness of security was lost, and the feet felt as if made of wood. Violent palpitation attended these pains, and, if she persisted in dancing, she would become faint and unconscious, and the body would grow rigid. Dr. Schultz found, on examination, that the cause of the difficulty was in the *pas* performed on the points of the feet, and was due to fatigue of the muscles which fix the metatarsus and phalanges of the great toe. On further examination it was ascertained that many of the female solo-dancers were troubled in this way, though to a far less degree. The ballet-master was accustomed to relieve cases where pain existed by tying a handkerchief tightly above the ankle. Other members of the *corps de ballet* than the solo-dancers were not affected.

† Dr. Onimus mentions a case of a man employed in a draper's establishment, and whose duty it was to put back the unfolded goods on the shelves. This exercise called mainly on the deltoid muscles, and in time there came on very gradually atrophy of these muscles on both sides.

Dr. Onimus also reports a case of a workman employed in a tannery eleven hours daily. In preparing the skins he had to perform a certain forward-and-backward movement, which drew especially on the muscles of the shoulder. These muscles on both sides became atrophied. In the right leg also there was atrophy of the rectus femoris, vastus externus, and vastus internus, due to long standing, resting the weight of the body on the right side. The first symptoms in these cases are a feeling of prostration, even in the morning on rising, and darting intermittent pains. The same writer also speaks of atrophy of the muscles of the thenar eminence, particularly of the adductor pollicis, in an enameller who was obliged to hold some object all day between his thumb and index-finger. Three points in the differential diagnosis of this malady and ordinary progressive muscular atrophy are presented by Dr. Onimus:

1. The muscles first to be affected are generally the largest ones.

and, lastly, telegraphers' cramp, to which Onimus has lately directed attention, and which is a result that might be expected to follow the employment of a telegraph operator.

Writers' cramp has been longer and more widely known than any other of these special forms of muscular trouble, for the reason, mainly, that writing is an old art, and one that is practised by a large number of people, many of whom depend upon it almost entirely for their support, laboring with the pen, it may be, for many hours daily; whereas in most of the mechanic arts depending upon limited groups of muscles there is more frequent change of position, and usually a wider play of motion. In the making of a piano or watch, in the manufacture of various articles,—glass, for example,—labor is divided and subdivided most minutely, so that each man knows and does his own special task, and no more, with no thoughts or acts beyond it; but in almost all processes of manufacture, even those most limited and special, there is more variety of action, greater freedom, and less restriction of motion to the co-ordination of a small number of muscles, and also more frequent opportunity for rest and change, than in writing. I have heard, however, that type-setters have a form of cramp or palsy peculiar to their calling; but no case of the kind has ever come under my care, although I could readily believe that now and then such a disease might appear.* Miners' nystagmus or constant oscillation of the eyeballs, caused by straining the eyes in the poor light of mines, is also to be included in this category.

In regard to the predisposing causes of writers' cramp, there are three considerations that have not hitherto been brought forward. *First.* It is a disease of the comparatively strong, rather than of the specially weak and feeble. This peculiarity writers' cramp shares with locomotor ataxia, progressive muscular atrophy, chronic alcoholism, and some other diseases of the nervous system. Those who are attacked by those maladies are not usually of the strongest types, nor of phlegmatic temperaments, nor, on the other hand, are they extremely nervous and hysterical; they are rather moderately strong but slightly nervous, or just enough so to be capable of appreciating evil influence long continued, but not sufficiently so to be affected instantly and suddenly, and so, not being warned by excesses, through bad symptoms affecting the nervous system in general, they go on committing excesses until local and severe difficulty appears.

Writers' cramp among hysterical women or very delicate men is rare. Such organizations cannot write long enough and hard enough to develop this disease; they become generally wearied and nervous; headaches, backaches, sleeplessness, bad dreams, dyspepsia, the whole list of functional woes, disturb them when they have written too much, and these symptoms come on at once or very soon after any excess is committed, and compel them to stop and rest, and by this forced rest they are saved. The strong, phlegmatic man has no such warnings, and he writes on until local and chronic weariness appears in the muscles concerned in the act of writing; the centres in the brain and spinal cord are tired out.

Nearly all the cases of writers' cramp that I have seen have been in persons who have had scarcely any other nervous disease,—who have never known what it was to consult medical aid for any chronic affection whatever, and who, on that account, are amazed that they break down in this special direction.

Secondly. Copyists and routine writers are more liable to this disease than authors and original composers. Lawyers and lawyers' clerks, who are busied largely in writing out the formal language of deeds, com-

2. The pain and cramps at the beginning of the disease.

3. These cases improve under rest and the use of galvanism more rapidly than progressive muscular atrophy.

Romberg (Nervous Diseases, vol. i. p. 322) relates the following case: "Some time ago, a smith, aged 37, came under my notice, who applied for relief at the hospital for a rigid contraction of the muscles of the forearm, occurring whenever he took hold of the handle of his hammer and wanted to fetch a blow. It was accompanied with violent pain, and the tense muscles were said to project like cords under the skin. This cramp had prevented him from attending to his business for the previous six months. All the other movements of the arm were unimpaired, nor did the motor or sensory functions of the arm show any other deviation from the normal standard. A violent concussion of the arm was stated to have given rise to the complaint in the first instance. The most energetic remedies, and at last the continued application of electro-magnetism (faradization), produced no effect, so that the patient was forced to abandon his trade, and to occupy himself with painting doors and windows, the handling of the brush not causing any inconvenience."

* The literature of writers' cramp is not very abundant. Romberg, in his chapter on the subject, says that Brück (Caspar, Kritisches Repertorium, 1831, vol. xxx. ii.) first called attention to the disease. Canstatt also (Die Specielle Pathologie und Therapie, vol. iii. p. 313) wrote on the subject, and distinguished between cramp of the flexors and extensors. Solly (Lancet, 1864, p. 264; 1865, p. 114) discusses its pathology. The electro-therapeutics of the disease have been discussed by Althaus (Scriveners' Palsy and its Treatment by Galvanization of the Sympathetic Nerve, Poore (Practitioner, Sept. 1872), Helles (Practitioner, Aug. 1873), and others. The monograph of Erb on Functional Nervous Diseases, in Ziemssen's Cyclopædia, recently translated, may be consulted

plaints, bequests, and so forth, employees in offices where verbatim copying is required, stenographers, who write out in full the reports they take of long discourses, —these are the classes that provide the candidates for writers' cramp; while great poets, historians, preachers, literati, and men of leisure who are also authors, are passed by. Editors who are in positions where much merely conventional routine pen-work is needed, and those who have many formal letters to write, may be attacked; but original creative writing, however extensively carried on, does not seem to predispose to this disorder. For this comparative exemption of those who live by original brain-work, a twofold explanation suggests itself:

(1) The counteracting influence of the higher forms of cerebral activity, the originating and expressing of ideas, is the healthiest possible form of work; and partly, though not entirely, for this reason is it that the great thinkers of the world have on the average lived longer than men of ordinary ability in the same callings.

(2) In writing out original thoughts there are longer and more frequent intervals of rest from the mechanical task of making the letters, while waiting for the thoughts to arise or to be arranged in the brain. In copying either from books and manuscripts, or from memory, as is the case with lawyers in writing out or filling out legal forms, there is no thinking to be done, or very little, and nothing to wait for save the recognition of what is written on the page before the copyist, or in his brain; consequently, the pen goes along rapidly and steadily, without any of the pauses or diversions that almost always accompany original composition, even in genius the most gifted.

Thirdly. Systematically careful penmen are more liable to this disease than those who take no pains with their writing. The difference between men in this regard is very great, and it is not true, as many suppose, that geniuses always write illegibly. Handwriting is a matter at once of mental and physical organization, and is the result of a combination of qualities which may or may not coexist with great genius. An original thinker, who thinks and writes rapidly, and in whose teeming brain ideas and images crowd upon one another, will very naturally give less effort to the formation of his letters than one who never thinks at all, and whose mind can be given without distraction to the mechanical part of his task. The agitation of mind that accompanies and is part of original thinking, like any other form of mental agitation, shows itself in muscular agitation, which state, when it extends to the arms, is hostile to plain writing, and for that reason, and for the additional reason that when ideas arise in swift succession it is necessary to write rapidly lest we lose them,—to take them on the wing, else they fly out of our sight,—the manuscripts of authors are so hard to read. The remark, "Easy writing is hard reading," applies as much to the penmanship as to the composition. The man who gives thought to his penmanship, who is careful to make the lines straight and even and true, who studiously dots his "i's" and crosses his "t's" and gives the right twirl to his "q's," and who does all with conscious effort at each step and with every word and letter, and who worries over every blunder, will be more liable to writers' cramp, if he write much, and other conditions are the same, than one who gives no heed to any of these details, whose thoughts are wholly on the matter rather than on the form of the composition, and whose manuscripts, it may be, are a terror even to himself.

Although long-continued habitual over-use of the writing-muscles in routine work is the usual cause, yet writers' cramp sometimes appears to be excited or started by a single prolonged over-use of the arm in writing, it may be days in succession. In some emergency, such as may happen to a lawyer in an important case, the pen may be in hand all day and all night, engaged not in original composition exactly, but in work that is to a certain extent clerical and for the completion of which there is great haste. I have frequently noticed in my own experience that protracted copying tires my arm far more than original composition.

Few of us consider the vast amount of force, cerebral, spinal, and muscular, that we are compelled to use in the merely mechanical part of writing. A good way to test this is to write through the medium of an amanuensis or stenographer. About two years ago, while under unusual pressure of work, I thought of a suggestion once given me by my friend Austin Abbott, Esq., of the New York bar, to dictate to a stenographer. I found that when fully

prepared by thoroughly digesting the subject beforehand, it was sometimes possible in an hour's time, and without great exhaustion, to dictate a lecture that would require over an hour for delivery, to have written which in full, in the ordinary way, would have required several hours, with temporary weariness after each sitting. The fatigue of writing is much increased by the constrained position in which we sit; in dictating, one can walk the floor, or lie on a sofa, and change at any moment from a standing to a sitting or recumbent posture.

The symptoms of the malady under discussion are, in general, *weariness*, *pain*, *numbness*, *stiffness*, *coldness*, and *cramp* or *spasm* of the arms, hand, fingers, shoulder, or neck. Attention seems to have been first and mainly directed to the spasmodic symptoms: hence the term, writers' cramp. But in many cases there is no cramp; in others it is not the leading symptom; and in few, if any, is it the first or only symptom. The disease has been called a palsy; but in strictness it is not a motor palsy, although, in the worst stages, it may go on to what is practically a paralysis.

Writers' cramp comes like a thief in the night. The symptoms are at first so light and fleeting that their true nature is not suspected. A man whose life is given to pen-work, and who has never known what chronic nerve-illness means, and who believes himself proof against all nervous maladies, and who, consequently, has very likely terribly taxed his writing-muscles, finds some evening after working hard all day that his forearm feels tired: he automatically rubs it a little, it may be, and thinks no more of it. In a few days his arm is tired again, and with the sense of weariness there may be slight pain, and he says, "I believe I'm getting neuralgia."

Pretty soon he observes that this feeling of tiredness comes on in the daytime before work is done, and in the last hour's writing he is continually conscious that he has an arm. Note the fact that up to this point he no more suspects writers' cramp than he suspects smallpox. The arm as well as the forearm may at times be stiff, and in trying to raise it there is pain at the insertion of the deltoid. The pain radiates down the arm and forearm and fingers, and up the shoulder, and over the back of the neck, and down the dorsal vertebræ. The patient declares that he is getting rheumatism, applies liniments, and swaddles himself in thick flannels, and is all the time afraid he will take cold. Or subjective numbness, minutely and persistently localized in the last phalanges of the index-finger, may be one of the first symptoms. There is the pin-and-needle feeling in the part, and then a fixed numbness; the patient rubs and rubs it, but it will not out, and then he thinks he is going to have paralysis. Perhaps all these symptoms leave without any effort on his part to drive them away, and the patient supposes that his neuralgia or rheumatism or paralysis is cured forever; but these evil symptoms have not retreated, they are merely lurking in ambush, and they rush upon the victim with greater violence than before. Now they recur persistently during writing, or at once after writing, and the night's repose does not cure them; they are worse and worse, and cannot be shaken off; the liniments and rubbings have lost their power; to stop writing is the only relief; and now, perchance, the patient begins to suspect what his symptoms really mean.

Such is a picture, drawn from the life, of writers' cramp, without the cramp. Thus far, there may have been no spasm whatever. Soon the patient finds his index-finger slipping on his pen-holder; his grasping power is lost wholly, so that he cannot write at all, or in part, so that many of the letters are badly formed, and his penmanship, previously good, becomes irregular. At this stage, relief for the time may be gained by holding the pen between the index and middle finger, instead of between the thumb and index-finger in the usual way. But the disease is not long kept at bay by this procedure, for soon all the fingers become so much involved in the liability to spasm that continuous writing grows irksome, painful, or impossible. With these spasms come increase of the stiffness and pain. Except in sleep, the arm is never easy; it aches all over from the occiput to finger-tip, and the other arm may ache somewhat also, until the patient becomes generally nervous and fidgety. The arm, perhaps, feels worse when hanging by the side, and is most easy when resting on a table or in a suspensory handkerchief.

These symptoms are attended sometimes by coldness of the hand, that is perceptible on grasping it. The muscular spasms of writers' cramp sometimes take the form of shocks, resembling those caused by the

passage of a current of electricity, and by patients are usually referred to "electricity" or "magnetism." Mediums, and others who become partially entranced with their hands on a table or planchette, or with a pencil in hand to write messages, or while waiting in an attitude of reverence for any of the so-called manifestations, often experience similar involuntary muscular spasms, and attribute them to their "controls," or to "magnetism," or "psychic force." Romberg states that Prof. Müller had this symptom whenever he over-exerted his hand and fingers.

These early symptoms, tiredness, aching, spasm of the arm with numbness and stiffness, are as truly symptoms of the disease as the spasm or cramp, to which attention has been hitherto almost exclusively directed by writers on this subject. So much has been said of the spasm—very little having been written, or almost nothing at all, of the incipient symptoms—that physicians have come to look upon it as the disease, and the fact which in the light of my own experience I have been compelled to admit, and which in this paper I seek to enforce, that this disease has the other symptoms I have mentioned, which appear not only with the cramp, but also long before the cramp is suspected, appears to be not generally understood.

The relation of these early and mild symptoms to the later and more serious symptoms of cramp may be made clear by the analogy of *locomotor ataxia*. A staggering gait is a prominent symptom of *locomotor ataxia*,—the one which is the first to excite attention, and the only one by which non-experts are usually able to recognize the disease; and it is regarded in itself as almost diagnostic; but we all know that it is only one of various symptoms of this disease, and in the early stages may not appear at all. While congestion of the cord exists, part of the cord being congested and part being sclerosed, and long before the peculiar staggering gait is manifested, we have a number of symptoms fully familiar to neurologists, that, taken together, are as truly diagnostic of the earlier stages of this disease as is the staggering gait of the later stages. As the chief hope of treating ataxia cases with success consists in taking them in hand before the staggering gait has developed, so the chief hope of treating writers'-cramp cases with success consists in treating them before the cramp appears. As the name *locomotor ataxia* is a misnomer, and has really done evil by causing physicians to concentrate attention on one symptom, and that peculiar to the later stages, and to overlook the early and milder symptoms, so the term writers' cramp is a misnomer, and has done evil by bringing one symptom, and that one of the later stages of the disease, into such prominence that the early and incipient and middle symptoms have been passed by.

Concerning the locality of this disease, I may remark that it seems to be both cerebral and peripheral, involving the region of the spine whence proceed the nerves that go to the arm, and very likely also the left side of the brain itself. The thought- and word-centres are certainly in the brain, and words are expressed by speech, by gesture, and by writing, and the cerebral centre for words is now believed to be pretty definitely localized. That there are motor centres or starting-points in the cortex of the brain is forced upon my mind as a fact that in time physiologists everywhere must acknowledge, however widely they may vary in their interpretations of or conclusions from that fact; and I do not see how any one thoroughly familiar with the physical and physiological laws of electricity, and with the minute anatomy of the brain, as taught by the best authorities, can go over the experiments of Hitzing on dogs, cats, and rabbits, as I have twice done during the past year or two, and come to any other conclusion. Now, it is not a fanciful idea that the centre, or starting-point, of writing, may, by long use in a certain direction, become enfeebled and possibly diseased, just as much as the nerves that carry the commands of the brain, or the muscles that execute them.*

Whether the disease is primarily peripheral or central, cannot easily be determined; even if the lesion, be it congestion or simple molecular disturbance, be peripheral at first, it may secondarily affect the centres in the cord. Hayem has shown by experiments on animals, not yet completed, that injury of a nerve may cause inflammation of the spinal cord by a propagation of the irritation from periphery to centre. Thus, when the sciatic nerves of rabbits

* For a most admirable discussion of this subject, see Dr. Jewell's paper on "*The Existence of Definite Motor Centres in the Cerebral Cortex*," in the Chicago Journal of Nervous and Mental Diseases, October, 1875; also a very interesting criticism on Ferrier's work, by George Henry Lewes, in "Nature," November 28, 1876.

and dogs are lacerated, the irritation travels from the nerve up to the cord, producing there a generalized central myelitis. Yet more minutely Hayem has looked into this subject, and proves that different kinds of peripheral irritation provoke different kinds of central disorder; the chemical irritation of nicotine or crystals of bromide of potassium brings on lesions of the pia mater and arachnoid, while laceration causes a perimeningitis. The inference is, that these irritations are slowly propagated from periphery to centre, by means of the connective tissue of the nerves.

Dr. Erichsen* relates a case of interest, where the crushing of a finger produced symptoms of cerebral softening, and death. The patient was sixty years of age, and had his finger crushed on a railway-car, between the door and the frame on the side of the hinge. The bones were not injured, but the patient became faint, and was much exhausted by the shock. The wound healed slowly, but satisfactorily, but the patient, who had been in perfect health before, lost flesh, grew feeble, and never fully rallied. In a month came twitchings, shooting pains, and cramps in the arm; then he had a slight fit; then came numbness, feeling of pins and needles, twitchings of the face, and exhaustion. He could not satisfactorily attend to his business, and in the following year he died of cerebral softening. It was clearly a case of cerebral disease caused by peripheral injury, and his widow obtained a verdict against the company. Dr. Erichsen says that he has seen at least two other similar cases.

That the centres are affected in writers' cramp is quite clear from the history of cases. Three facts show this: the pain in the region of the cervical and dorsal vertebræ, the general nervousness that is sometimes excited, and the occasional extension of the disease to the other arm. Patients who have been always strong before, under the influence of this disease, after it has reached a severe stage, become irritable, nervous, and sleepless, and when they learn to write with their left hand the disease may in time extend to that also.

Burckhardt has made experiments, with complex and delicate apparatus, on the differential conductivity of healthy and diseased nerves, and he claims that in writers' cramp the nerves that go from the brachial plexus to the hand transmit the nervous influence at very different rates of speed, and that the interossei muscles differ somewhat in their excitability under electricity. If we receive the results of these experiments as facts, we have a clear and interesting elucidation of some of the phenomena of writers' cramp. The command to write, sent forth from the cerebral cells, does not reach the different members of the group of muscles that are used in the act of writing at the same time: hence, incoördination of action. This lack of harmony is further increased by the excitability of the muscles, a condition which, according to this observer, is always found in these cases. It is as though in an army an order should proceed from the commander-in-chief for a simultaneous attack of all the divisions, but through the delay of some of the messengers the different bodies should receive the message in irregular succession; in an attack under such circumstances, there would be the same incoördination and ill success that is seen in the muscles of a writers'-cramp patient when he attempts to write in obedience to the command of the will.

The great point in the diagnosis is, that the pain, or uneasiness, or aching, or spasms, are brought on by the act of writing, and are relieved more or less by abstaining from writing, and, usually, no other form of exercise of the muscles of the arm has this aggravating effect to so marked a degree. I have had one case, however, where the arm was always tired by carrying a parcel, and Althaus had a patient, an amateur pianist, who, "six months after the first difficulty in writing had appeared, found great trouble in executing a particular fugue which had been his great delight." This patient had then a combination of pianists' and writers' palsy.

* Concussion of the Spine, Am. ed., p. 230.

TWO CASES OF MYALGIA FOLLOWING CONTUSIONS.

BY J. C. WILSON, M.D.,

Assistant-in-charge of the Medical Clinic at the Jefferson College.

TWO cases of painful muscle-trouble have recently been under my care. I have thought them worthy of publication, not because there was anything unusual or especially instructive about the attacks after they were once established, but because

they appear to me to be directly traceable to a cause not usually recognized as among those of so-called muscular rheumatism, and at the same time to illustrate a view of the pathology of such disorders which, whilst it is not new, is certainly not a familiar one.

They are examples of a malady of which Valleix, who gave much care to its study, said, "Muscular rheumatism has been always known, it is extremely common, its symptoms are few; at first sight nothing would appear easier than to describe it. But, in fact, nothing is more difficult than to delineate it with exactitude." Since his time, Inman, Anstie, and many others have done much to clear up our clinical knowledge of painful muscular disorders; but the exact pathological basis of their familiar phenomena is still involved in speculation and uncertainty. We know that these troubles are local, that they are manifest in the muscles, sometimes singly, sometimes in groups, and in their aponeurotic expansions or their tendinous prolongations. We recognize pain, tenderness, spasm, in most cases a slight but tangible fulness, often decided swelling, as the collection of symptoms constituting myalgia. We are accustomed to regard it as due to a disturbance of the balance between the nutrition of muscles and the work they are called upon to perform; and to attribute this disturbance to actual overwork, or to lessened nutrition of the affected muscles from locally acting causes, cold, damp-cold, strains, and the like, or from impaired general nutrition, in which any group of muscles doing its own accustomed work, or a little more, or even a little less, may be overworked, and so become myalgic. But of the tissue-changes which underlie these conditions we are to a great extent ignorant. Only those which come to pass in long-standing and uncured cases have been ascertained, and the affection, common as it is, is, as regards its true nature, altogether obscure. The obstacles in the way of precise histological investigation are here so great that it seems probable that further knowledge is to be reached for the most part by way of clinical work.

Garrod suggested that the essential pathological process might be inflammation.

Elsewhere* I have advocated the theory of the congestive or *sub-inflammatory* nature of these myalgic affections, and have adduced certain characters which seem to render that view most probable.

Clearly, despite the popular name, they are not rheumatic, nor indeed, as we commonly understand the term neuralgia, are they of that nature, and they can scarcely be claimed as inflammatory in the common sense of the word, though, as I have just said, I believe they are of that kinship. And these two cases, where we have an injury, a contusion, in short, traumatism followed by myalgia, are of some value as illustrating this theory.

Case I.—G. McC., a well-built man, of medium height, 44 years of age, a baker by trade, came to my office in November, 1876, seeking advice in reference to pains in and about the left shoulder.

His statement that his general health was good was borne out by his appearance and history. He had never had rheumatism, and did not belong to rheumatic people. He could recall no sickness except an attack of fever many years ago. His habits are temperate. Ten weeks before, he slipped on a stairway at the bakery and struck the front part of his left shoulder on a projecting rail. A good deal of swelling and soreness followed, and the shoulder became "black and blue." In a week these symptoms subsided, and he began to do a little work. The shoulder, he states, then looked quite right, and was no longer sore as at first; but at this time pain of a different character set in. This pain was seated in the front part of his shoulder, and extended down the arm to a point a short distance above the elbow-joint. It was a dragging, tearing pain, constantly present, but very much worse when he attempted to work. It had given him great trouble, and was growing worse instead of better. Although bred a baker, and accustomed to the hard night-work of his trade and to great and sudden changes of temperature, he had never had any trouble of the kind before.

I examined the arm, and found the coracobrachial and the coracoid head of the biceps full, tense, and tender upon pressure. Pain was distributed about the front of the shoulder, but it was easy to determine its focus in the muscles attached to the coracoid process.

Under a treatment consisting of prolonged gentle frictions evening and morning, and the hypodermic injection of one-sixtieth of a grain of atropia, every third or fourth day, the spastic condition of the muscles passed away, and with it the tenderness and pain. In three weeks he declared himself perfectly well, and as able to work as ever.

The atropia was injected, in all, five times.

* Paper read before the Philadelphia County Medical Society, December 13, 1876.

Here we have the malady closely following the injury; that is to say, no sooner have the symptoms of the primary trouble subsided, than those of the resulting myalgia show themselves, and that, too, with considerable severity.

In the case which follows, the association is not so close, but it is, I think, sufficiently clear.

Case II.—Mr. W., a gentleman of about 36 years of age, large and heavy, was, whilst in the act of alighting from a wagon at Bar Harbor, in August, 1875, thrown with considerable violence to the ground by the sudden starting of the horses. He fell upon his left side, the hip receiving the force of the blow. The usual phenomena of contusion supervened,—soreness, stiffness, discoloration, a slight amount of swelling. In a few days, however, all was well again, and the accident was forgotten. The following November, after his return to Philadelphia, he was seized with pains around the left hip, which, from his account of them, must have been myalgic in character. The attack occurred after a spell of damp, cold weather; it was unattended by constitutional symptoms; no other part of the body was affected, and in ten days it passed away.

No treatment was used except frictions with chloroform liniment and rest.

Thursday, September 26, 1876, he visited the Centennial Exhibition, and prolonged his stay into the evening to see fireworks. He arrived home very late and greatly fatigued. The next day there was soreness referred to the left hip and increased by movement. This grew worse till the following Tuesday, when he walked with difficulty and could scarcely rise from the sitting posture. On Friday he was compelled to remain in his bed, and did not leave it till the third day. There was no fever during this attack, no constitutional difficulty of any kind. The gentleman had never had any form of rheumatism, and rejoiced in unusually good health. Besides the pain there was marked deep tenderness of the tissues around the great trochanter, but not of the joint itself. In a word, we had to deal with a second attack of myalgia involving muscles that had been contused more than a year before. The contusion acted as a predisposing cause; the over-exertion and exposure in standing a long time on damp ground when tired, as exciting causes. Three days' rest in bed, with *massage* and subcutaneous injections of atropia and morphia combined, brought the difficulty completely to an end.

Dr. Inman* gives a brief account of a similar case. "Mrs. L. was the subject of a severe accident, which bruised the back considerably and materially debilitated its muscles. One morning shortly afterwards, as she was stooping forward to arrange her hair, the head bended on the chest, and both hands at the back of the head, a painful cramp seized the muscles, and in that condition she remained for three days in great suffering."

* Spinal Irritation Explained, 1858.

NOTES OF HOSPITAL PRACTICE.

EPISCOPAL HOSPITAL.

SERVICE OF DR. JOHN H. PACKARD.

Reported by OLIVER ROLAND, M.D., Resident Surgeon.

I.—TREPHINING FOR A COMPOUND, DEPRESSED, IMPACTED FRACTURE OF THE SKULL.

T. McG., æt. 40, a laborer by occupation, was admitted to the surgical ward of the Episcopal Hospital November 18, 1876. He had walked some three or four squares to get to the hospital, his gait being unsteady and staggering. He stated that while he was working in a culvert an iron bar, with other débris, had fallen upon him, striking him on the head, knocking him down, and rendering him insensible for a short time.

An examination revealed a compound, depressed, impacted fracture of the skull, located in the anterior part of the right parietal bone. There was considerable laceration of the scalp, and the depressed portion of bone was as large round as a silver quarter, and as deep along half its circumference as the thickness of the skull, perfectly smooth, and, although comminuted, yet neither with the forceps nor elevator could any pieces be raised. There was also a severe contusion of the neck, with several other minor injuries. The man complained of severe pain in his head, and giddiness, and was evidently still suffering from the shock of the blow, though in all respects perfectly rational.

His head was shaved, the scalp-wound simply drawn together with adhesive strips, and a light compress placed over all. Ice was then continuously applied, he was given calomel, gr. viii, kept in bed, and put upon an exclusively liquid diet. His urine and fæces were voided naturally; pulse and respiration normal. During the night, as he was rather restless and slept little, he was given a full dose of bromide of potassium. Throughout the whole of the following day his condition was much the same. He took his food well; the pain in his head was described as dull and heavy,

and giddiness returned whenever he tried to sit up in bed. He was put upon a treatment of opium and calomel, and his bowels kept freely moved.

November 20.—Slight fever and heat of head were noted, the pain much the same in character; there was also occasional diarrhœa; the pupils were moderately contracted, but equal on both sides; the pulse was full and about seventy-six per minute. A large blister on the nape of the neck gave some relief, and the man passed a comfortable night.

November 21.—Superadded to the above symptoms were slight sickness of stomach and a tendency to wandering delirium at night, but during the day consciousness was fully preserved.

November 22.—Pupils still moderately contracted; he vomits almost everything he takes; in the afternoon great restlessness and delirium, followed during the night by stupor and stertorous breathing, with a loss of control over the bowels and bladder.

November 23.—Pupils contracted to pin-points, slight paralysis of left arm and leg, tongue coated, breathing labored, pulse sixty per minute, occasional convulsions and profound coma. During the morning he was trephined by Dr. Packard, the whole of the comminuted portion of bone being removed, and the remainder of the depressed part being readily raised with the elevator. The membranes were seen pulsating synchronously with the heart's action, and seemed to be intact.

No immediate effect from the operation was experienced, but gradually the man seemed to breathe more freely, and in about four hours consciousness had partially returned. During the night, however, his pulse became much weaker, there was profuse sweating, and a slow return to the same condition as before the operation, and at half-past eight o'clock next morning he died.

The autopsy revealed an abscess of the brain immediately under the seat of fracture, together with diffusion of pus over the whole surface of the brain, two or three ounces flowing out upon the removal of the cranial contents. The brain-substance itself appeared to be normal.

In connection with this case it is of interest to report another, in which the nature of the injury, and the symptoms on admission, were almost identical, but the course and final result of the case totally different.

II.—COMPOUND, DEPRESSED, NON-IMPACTED FRACTURE OF THE SKULL.

C. S., æt. 32, an employee of the North Pennsylvania Railroad, was admitted to the surgical ward of the Episcopal Hospital about nine o'clock on the morning of December 12, 1876. He walked into the hospital supported by two men, his gait being very unsteady and staggering, and when questioned as to the nature of his injuries gave a very rambling and incoherent account. It was, however, afterwards discovered that they had been received while looking out of the door of a baggage-car, the train being in full motion. His head had struck violently against some object, throwing him on the floor of the car and rendering him insensible for some time. He was brought to the hospital three or four hours after the accident, when an examination revealed a large lacerated wound of the scalp, and one-eighth of an inch to the right of this a depressed fracture of the skull, elliptical in shape, two and one-half inches in length, and as deep in one place as the thickness of the skull, located just in front of the left parietal boss. There was considerable headache and dizziness, and the man vomited several times during the day. His pulse was about one hundred and ten per minute, pupils equal and slightly contracted. It was found necessary to catheterize during the night.

The treatment consisted in simply closing the wound with adhesive strips, the application of ice, and the administration of calomel and opium, his bowels being freely opened by purgatives. Diet exclusively liquid. He passed a rather restless night, but in the morning seemed to be improved. Though the pain in the head still continued, it was much less severe, and there was little or no giddiness when he sat up in bed. His sphincters were altogether under control, his appetite good, and no other symptoms of compression had yet manifested themselves. He continued to improve rapidly, and in about a week was, at his own request, discharged, the scalp-wound being almost entirely united, and all brain-symptoms having ceased two days previously.

Remarks by Dr. Packard.—These two cases, taken together, afford a good illustration of the delicacy and difficulty of the questions which may arise as to the

prognosis and treatment in injuries of the head,—especially as regards operation.

Both these patients were adults, between 30 and 40 years of age, and both in robust health, although No. 1, the older, had more the appearance of a drinking man. In both the injury had been a very severe blow, followed by insensibility; and the amount of local lesion was very nearly alike in both. Both staggered, but No. 1 walked to the hospital at once by himself, was rational, and for several days presented no symptoms beyond restlessness, slight diarrhœa, and a little wandering at night. No. 2. on the contrary, several hours after he was hurt, could only walk supported by two men, talked incoherently, had a pulse of one hundred and ten, and at night required the use of the catheter.

And yet, while No. 2's recovery was rapid and uninterrupted, No. 1, whose earlier symptoms had been less serious, became, on the evening of the fourth day, very ill, and on the fifth the signs of compression were such as urgently to indicate operative interference, which, however, was unavailing.

Had trephining been resorted to on this man's admission into the hospital, it might possibly have changed the issue of his case, but, on the other hand, a rule of practice which had demanded its performance on him would have still more demanded it for No. 2, who did well without it; and the acknowledged risks attending this procedure would certainly have diminished the latter's chances.

It must not be forgotten that injuries of the head are by no means unapt to be followed by secondary trouble, even after the lapse of years; and the surgeon who expresses himself too confidently as to the safety of a patient, merely because his symptoms have subsided, may find his opinion unfulfilled. This qualification seems needful in regard to the expression above used as to the "recovery" of case No. 2.

TRANSLATIONS.

Origin of Phosphate of Calcium eliminated by the Intestines and Kidneys; Therapeutic Value of this Substance.—From a lengthy article upon phosphate of calcium in the economy by MM. Paquelin and Jolly, published in *La France Méd.*, October, 1876, we take the following conclusions: 1. Phosphate of calcium is only absorbable in the smallest quantity. 2. The organism can in general consume but a very small amount. 3. The circulation conveys only the most insignificant quantities; the tissues, bones excepted, contain, so to speak, only *traces* of the salt. 4. The economy manufactures its own phosphate of calcium by a double exchange, and finds in the food all the elements necessary to increase the production of this substance according to its requirements. 5. The phosphate of calcium found in the urine is for the most part a product of intra-vesical formation; the totality of the urinary phosphate of calcium is therefore not a direct product of dis-assimilation. For this reason the figure intimated by authors as representing the normal mean of dis-assimilated phosphate of calcium, which does not take account of this fact, is tainted with a decided error. 6. The artificial phosphates of calcium, soluble or insoluble, are rejected by the excrementary passages without being utilized. 7. Of the two elements phosphoric acid and lime which enter into the composition of the phosphates of calcium, soluble and insoluble, the first (phosphoric acid) is absorbed, in certain proportion, in the condition of alkaline phosphate; the second (lime) is rejected directly and almost completely by the intestinal passages. 8. The addition of phosphated lime to the diet is, therefore, an obstacle to nutrition. 9. The soluble preparations of phosphated lime act at first as acid principles, then, on account of the changes which they undergo in the intestine, they act secondarily in a certain measure as phosphoric agents with another base. X.

Injections of Hot Water in Uterine Hemorrhage.—R. Windelband (*Centralblatt für Chirurg.*, 1876, No. 48) had his attention drawn to the successful use of this remedy by Dr. Mann, of Rhode Island. Two years' experience has convinced W. that injections of hot water into the vagina and uterus form the very best treatment for uterine hemorrhage when some immediate relief is demanded. The temperature of the water is from 38° to 41° C. (102° to 104° F.). The hot injections never leave any uncomfortable feeling in the parts, nor any evil after-result. The explanation of the action of hot water is that it excites in a high degree the muscular fibres of the uterus to action. X.

Effects of Wounding the Cervical Sympathetic.—A. Seeligmüller (*Centralbl. für Chirurgie*, No. 47, 1876) has observed eight cases of this lesion out of the thirteen recorded instances. Of these thirteen cases, ten were accompanied by pain, only three by symptoms of irritation. The symptomatic phenomena of traumatic lesion of the cervical sympathetic are (1) oculo-pupillary, (2) vaso-motor, (3) trophic. Belonging to the first series may be mentioned the following symptoms: following paralysis of the sympathetic, imperfect opening of the eyelids, contraction of the pupil, retraction of the eyeball; in the case of irritation of the sympathetic we find, on the contrary, the lids widely opened, dilatation of the pupil, and protrusion of the eyeball. In two cases, however, irritation of the sympathetic was followed by decided contraction of the eyelids instead of the reverse.

The second series of phenomena were less frequently observed. In some cases the vaso-motor disturbance seemed spasmodic instead of continuous. In ten cases of paralysis of the sympathetic, vaso-motor disturbances were only noted twice; in one instance, reddening merely of that portion of the face which corresponded with the distribution of the nerve was noticed; in another, increase of temperature was also observed. Of the three cases of irritation of the cervical sympathetic observed by S., vaso-motor disturbance was noted in only one; but here it was very striking. The face of the patient, who was a hard drinker, retained on one side its habitual deep flush, while on the other the spasm of the capillaries was shown by marked pallor. In addition, the temperature in the external auditory meatus of the affected side was nearly one degree centigrade lower than upon the normal side.

As to the third series, trophic disturbances were observed in only five cases out of the thirteen. In the case just alluded to, wasting of the affected side appeared very soon after the accident, so that within eight days the difference between the contour of the patient's two cheeks was quite noticeable. In the cases of paralysis of the sympathetic it is difficult to conceive any explanation of the consecutive hemiatrophia facialis without presupposing the existence of specific trophic nerves. As to the origin and form of the original injury, in the ten cases of paralysis of the cervical sympathetic six occurred through gunshot injury, one from penetrating wound, two from fracture of the clavicle, and one from severe contusion of the shoulder. The three cases of irritation of the cervical sympathetic occurred once from contusion of the shoulder with fracture of the clavicle, and twice without such fracture.

Dr. Hutchinson, as is known, has called attention to the frequent concurrence of paralysis of the brachial plexus with affection of the cervical sympathetic. In nine of Seeligmüller's cases the brachial plexus was either partially or entirely paralyzed. He thinks this took place not through the contiguity of the sympathetic, but by means of recurrent connecting branches. Seeligmüller is of opinion that if the sympathetic phenomena were observed in every case of injury to the shoulder, the number of recorded cases would be very largely increased. x.

New Abortive Treatment for Anthrax.—J. Guérin (*Bull. de l'Acad. de Méd.*, 1876, Nos. 36 and 37) distinguishes two kinds of carbuncle, the benign and the malignant. The first is a local affection, and comparatively without danger; the latter consists in a more or less severe infection of the general system, dependent upon septicæmic changes in the centre of the carbuncle from exposure to the air. From this theoretical basis G. deduces two indications for treatment: first, to contend against the formation of the septic poison in the carbuncle, and second, to hinder the absorption of this poison by the circulation. He effects his object by a large ichthyocolla plaster, which is provided with an opening in the centre, through which disinfecting applications, carbolic acid, permanganate of potassium, and the like, can be applied to the middle of the carbuncle. The effect is immediate: the redness diminishes, the pain lessens, even when the inflammatory appearances have been very marked, and the tumor diminishes in size. The subsequent treatment consists in the employment of linseed poultices and carbolic acid solution. By this means Guérin has succeeded in aborting not only the malignant pustule, but also erysipelas, the stings of poisonous flies, purulent inflammation of the joints, etc.; and he recommends the method in every case where infectious disease may be developed from a local diseased centre, as well, finally, as in dissection-wounds. x.

PHILADELPHIA

MEDICAL TIMES.

PHILADELPHIA, FEBRUARY 3, 1877.

EDITORIAL.

THE LAW OF LIBEL.

A LIBEL suit has just been tried in this city that has sufficient special interest and warning in its history to make it worthy of consideration by the general profession. It appears, to omit non-essential details, that Drs. Buckman and Longshore were examining physicians to a mutual life insurance company, in which Dr. Thomas H. Andrews was insured. The company's business falling off, and much dissatisfaction with the medical examiners prevailing, one or more of the officers of the institution approached Dr. Andrews in regard to the character of the medical examiners, and were informed that they were men of bad repute. Finally, at solicitation, Dr. Andrews stated, in writing, that the medical examiners were not recognized by the regular profession, and that one of them, to his certain knowledge, was connected with a quack medical institution,—the Penn Medical University.

The medical examiners, it seems, were annually elected, and, at the election subsequent to the inditing of this letter, Drs. Buckman and Longshore were voted out, and Dr. Andrews was voted in. The issue charged that Dr. Andrews had injured the professional standing of Dr. Buckman, and had directly caused the loss of his position, from which, according to his statements on the stand, he was deriving a yearly revenue of fifty dollars.

The defence asked for a non-suit, on the ground of a "privileged communication." The non-suit was not granted; but the discussions of the lawyers and the charge of the judge outshadowed plainly the law on the subject, and the matter seems so important and so little understood by the medical profession that we state it here.

If a man make, "as a busybody," and without having any direct interest in the case, a statement damaging to another, and a suit of libel be instituted, then all the plaintiff has to do is to prove the libel and the injury worked to himself: the fact of the libel is considered prima facie evidence of malice, the presumption being against the defendant, who must prove the truth of his assertion. If the defendant establish this, he is free from civil prosecution, but is still liable to criminal process, at the instance of the commonwealth, if it can be shown that the libel was of such character as to endanger the peace of the commonwealth. If, however, the defendant in a libel case had a proper interest to be served in making the statement, or if the statement have been made in answer to inquiries by those having a direct interest, then the communication is legally "a privileged one," and the presumption is in favor of the defendant. The utterance of the libel is no longer prima facie evidence of malice: the burden of proof rests upon the plaintiff, who must show the falsity of the charge. The charge being proved false by the plaintiff, the defendant may still acquit himself by showing that he had reasonable grounds for believing it true. If he cannot do this, the falsity of the charge is presumed to show malice, and the libel stands. Thus, to use an illustration employed by Judge Hare in his charge, if a doctor go voluntarily into a family where one is sick, and tell the patient or his friends that the physician is incompetent, a libel suit will lie in its strictest rigor; but if a member of the family come to a physician and say, "My brother is sick under the care of Doctor so-and-so: is the doctor competent?" the reply will be of the nature of a "privileged communication."

The bearing of the law upon the present case is plain. Dr. Andrews, being a

copartner in an association, was approached by officers of that association, and wrote a letter at the suggestion of the parties interested. Such communication was evidently a "privileged communication;" and so Judge Hare decided. It was distinctly shown by the evidence, as given both on the side of the plaintiff and on that of the defendant, that the first allegation made by Dr. Andrews was true,—that Dr. Buckman, although a graduate of the University of Pennsylvania, belongs to none of the regular medical societies, and is not met by regular practitioners in consultation. In regard to the second allegation, the judge declared that he was in greater doubt, the word "quack" being a difficult one to define, especially when used in regard to institutions. He stated that he should incline to understand it as applicable to a college which, in the character of its faculty, in the manner and scope of its teachings, was decidedly below the level of the average institutions of its country. The only evidence before the jury in regard to the Penn Medical University was to show that it was not recognized by what are usually termed the regular medical colleges of the country. This would seem, the judge stated in substance, to imply that it was below the range of such institutions; but it was a matter for the jury to decide whether that inference was to be fairly drawn, and whether the word "quack" was properly applicable to the Penn Medical University, so far as the scant amount of evidence before the jury would enable them to judge. His honor also further charged that if, in the opinion of the jury, the evidence did not prove that the college was a "quack institution," they must still find for the defendant if the evidence showed that there were reasonable grounds for believing that Dr. Andrews honestly gave the opinion that the college was of such character.

Under this charge, the vindication of Dr. Andrews would seem to the uninformed medical mind, at first glance, inevitable. But juries are not composed of medical men; and the counsel for the plaintiff, of course, endeavored to make the twelve good and true men believe that it was a quarrel between different medical schools, in which one was as good, or, as he put it, as bad, as the other, but in which one man had ousted the other for the sake of his place by calling him a "quack." The result was that the jury, when it went out, stood two for defendant to ten for plaintiff, and when it was discharged, four to eight.

The deductions to be drawn from this case are so evident that it is scarcely worth while to point them out. We cannot, however, refrain from calling attention to the great care which ought to be exercised in the use of the word "quack." Very rarely is its employment justifiable, and still more rarely is anything accomplished by its use. It always sounds to an outsider like calling names; and it is always more effective to state facts than to use opprobrious epithets. If a physician be homœopathic, irregular, or ignorant, let the practitioner, when called upon, state exactly the facts and avoid generalities. If the facts be damaging, he destroys character far more effectively than he would by resorting to the school-boy's device of hard names, and, provided he speak the truth, need not fear a libel suit.

THE LATE PROFESSOR CARSON.

DR. JOSEPH CARSON, who for more than a quarter of a century held the important chair of Materia Medica and Pharmacy in the University of Pennsylvania, was a native of this city, and was born in 1808, having thus nearly completed his sixty-ninth year at the time of his death. He was a graduate, both in Arts and in Medicine, of the school with which he was afterwards so long associated as a teacher, receiving the degree of Bachelor of Arts in 1826, and that of Doctor of Medicine in 1830.

Shortly after his graduation, Dr. Carson served as Resident Physician in the Almshouse, then situated on Tenth Street, between Spruce and Pine Streets, the list of his contemporaries in that institution and in the neighboring Pennsylvania Hospital including the well-known names of Drs. Thomas Stewardson, Thomas Forrest Betton, George W. Norris, Edward S. Rivinus, William Keith, and William W. Gerhard. Upon the expiration of his term of service in the Almshouse, Dr. Carson made a voyage to Calcutta and Europe, leaving Philadelphia in October, 1831, and returning in July, 1832.

The first important public position held by Dr. Carson was the Professorship of Materia Medica and Pharmacy in the Philadelphia College of Pharmacy, to which he was elected in 1836, succeeding Dr. R. Eglesfeld Griffith, who removed from the city in that year and shortly afterwards accepted a chair in the University of Virginia. In 1849, upon the retirement of Dr. C. D. Meigs, who had held the post for more than ten years, Dr. Carson was chosen one of the Physicians to the Lying-in Department of the Pennsylvania Hospital, and, with his colleague Dr. Hugh L. Hodge, served until the final closure of the obstetric wards of that institution in 1854. Meanwhile, in 1850, by the transfer of Dr. George B. Wood to the chair of Theory and Practice of Medicine in the University of Pennsylvania, that of Materia Medica and Pharmacy had become vacant, and to this Dr. Carson was elected, after a close contest, in which his success was all the more honorable on account of the distinguished ability of his competitors.

As a teacher of Materia Medica, Dr. Carson had few equals and probably no superior. With the increased diffusion of pharmaceutical knowledge and the enlarged number of skilled pharmaceutists in our country (so that, at least in many of our States, every small village, even, has its well-appointed drug-store), the necessity for a practical knowledge of the Materia Medica on the part of the physician has, in a great measure, passed away; and teachers of this branch now properly devote less time to the consideration of the natural history and preparation of drugs, and are thus enabled to dwell more fully upon their physiological actions and therapeutic uses; but at the commencement of Dr. Carson's career as a professor, and indeed long afterwards, the state of things was very different, and a personal, practical knowledge of the physical characters of drugs in their crude state, as well as of the modes of preparing them for medicinal employment, was of the utmost importance to all physicians who were likely to be called upon to practise out of the limits of our principal cities. Those who remember Dr. Carson's lectures on Cinchona Bark, on Opium, on Cod-Liver Oil, and other specially important articles of the Materia Medica, will recall the intense, almost enthusiastic, interest which at such times the lecturer was wont to manifest in the subject of his discourse, an interest which could hardly fail to awaken some responsive feeling even in the most careless student, and even at that peculiarly somnolent post-prandial hour at which the doctor's lectures were generally delivered.

Dr. Carson's style as a lecturer was clear and methodical, but without any attempt at elocution. His systematic instruction was constantly interspersed with practical hints and brief references to cases which served to illustrate his didactic teaching and to impress upon the student's mind important facts which might otherwise have been forgotten. To his private pupils, his weekly examinations both upon his own branch and upon the Practice of Medicine proved most instructive, and none who had the good fortune to call him preceptor will hesitate to acknowledge their great obligations to him in this respect.

As would naturally be expected, Dr. Carson's profound knowledge of drugs

in all their relations, combined with his large experience in the Almshouse and Hospital, rendered him a most skilful physician, as well in general practice as in the special branch of midwifery. The present writer had it from Dr. Carson's own lips that he was at one time strongly tempted to devote himself particularly to obstetrics, having been urged to do so by the late Prof. C. D. Meigs, who, finding his immense midwifery business too laborious for his unaided strength, was beginning to look about him for a suitable assistant to work with and ultimately to succeed him in practice.

Careful in diagnosis and thoroughly versed in the pathology of disease, Dr. Carson excelled more especially in therapeutics. While by no means a polypharmacist, he well understood and justly placed great faith in the *combination* of remedies (too much neglected at the present day), and was thus often enabled to obtain favorable effects from medicines which, differently administered, had in the hands of others proved inefficient.

As an author, Dr. Carson was remarkable for the thoroughness with which he first studied out his subject, and the clearness with which he afterwards expounded it; but he was not a prolific writer, and his publications cost him too much care and labor to be either very many or very voluminous. His principal productions were his "Illustrations of Medical Botany," published in 1847 (a work of great beauty and merit, long since out of print); his editions of Royle's and of Pereira's works on Materia Medica and Therapeutics; a synopsis of his lectures in the University, which went through four editions; and the volume on which he spent many years of labor, and which he himself regarded as the work which would longest survive as a monument to his memory, his learned and well-known "History of the Medical Department of the University of Pennsylvania." He also published several lectures on the *modus operandi* of medicines and on emetics, an admirable study (in the form of a review) on the causation of puerperal convulsions, with several occasional papers, introductory lectures, addresses, etc. Dr. Carson was frequently urged to prepare a text-book on Materia Medica, and for many years looked forward to doing so; but the period never came when he could give the time and labor necessary for such an undertaking, and he died with his text-book unwritten.

Dr. Carson occupied many honorable positions which testified to the general respect and esteem with which his fellows regarded him. He had been President of the last National Convention for the revision of the Pharmacopœia, President of the Philadelphia County Medical Society, and Vice-President of the Academy of Natural Sciences; and was, at the time of his death, a Censor of the College of Physicians, a member of the Library Committee and a Curator of the American Philosophical Society, one of the Council of the Historical Society, a Manager of the Philadelphia Trust and Safe Deposit Company, etc.

Dr. Carson was a consistent member of the Episcopal Church. He was twice married, and has left a son and two daughters to mourn his loss. This is not the place for any consideration of his life in its private and domestic relations, but it may be permitted to the writer, who knew him well as preceptor, physician, and friend for twenty years, to say that those who only met him in his official capacities could form but an imperfect conception of the sterling merit of his character, and of the lovable gentleness of his disposition.

J. A., Jr.

A New Medical School is announced in New Albany, Indiana. It is intended "to supply a want long felt by the medical profession of Floyd County, Indiana;" also to prevent "the great loss that will accrue to medical science if the great professional talent" contained in New Albany be not engaged.

LEADING ARTICLES.

FUNCTIONS OF THE BRAIN.

No. 1.

THERE has recently appeared a book* of such importance and interest upon the brain-functions, that we propose offering our readers a sort of running commentary or *résumé* of it.

In studying the action of the nervous system, it is often very difficult to distinguish between reflex and conscious movements. If a drop of acid be put upon the thigh of a frog whose brain has been destroyed, it will try to remove it by rubbing with the foot of the same side; if this foot be amputated, the batrachian will attempt first to reach the acid with the stump, but, failing to do so, will take the other leg for the purpose. This looks very much like purposive, conscious action; that it is not so, however, is shown by the fact that the brainless frog, in water gradually heated, will be boiled without attempting to get out or manifesting signs of pain. Rising to the medulla, we find actions produced much more complex than those originating in the spine, and yet as undoubtedly reflex in their character. The young animal deprived of all its brain-centres above the medulla will not only breathe, but when the nipple is placed in its mouth will vigorously suck. Above the medulla is the mesencephalon,—the pons Varolii, corpora quadrigemina, and cerebellum. In this region originate movements in regard to which it is especially difficult to decide whether they should be considered reflex or voluntary. If a frog be deprived of its cerebral hemispheres, it will, as long as it is undisturbed, sit perfectly motionless. If, however, its resting-place be tilted, it will make efforts to regain its equilibrium. If put in water, it will swim to the surface, clamber up the sides of the vessel, and sit perfectly still; if the water be hot, its efforts to get out become frantic. If the toe be pinched, the frog leaps away, and, in doing so, takes care to avoid any obstacle in its path. If its back be stroked, it will croak lustily, so that a band of brainless frogs might be obtained whose guidable chorus of βρεκεκεκεξ κοαξ κοαξ would have delighted the heart of Aristophanes. Yet this frog, if undisturbed, sits forever motionless; surrounded by food and water, it touches not either; in the midst of plenty, in an abundance of liquid, it dries to a mummy; unlike Tantalus, refraining not because it is unable to reach what it desires, but because it desires not what it can reach. The fish, when its cephalic lobes are destroyed, becomes the embodiment of action,—rushing, the moment it is freed from the hand of the operator, through the water in a straight line, until it is arrested by the side of the vessel or is paralyzed by exhaustion.

The mutilated pigeon acts like the frog. It sits motionless in a profound forgetfulness, roused for the moment by a stimulus, but sinking into apathy when this is withdrawn. If food be placed before it, it perishes of starvation; if, however, the nourishment be put into its mouth, it swallows it, and in this way life may be maintained for months.

In the rabbit or guinea-pig there occur, after ablation of the cerebral hemispheres, movements, emotional cries, resistance to disturbance of equilibrium, and other phenomena similar or parallel to those which are produced in the lower vertebrates, but there is much more evident exhaustion; and when still higher mammals are operated upon, the shock is so great as to obscure the proper manifestations: nevertheless, it is plain that the independent activity of the lower centres exists in the higher as in the lower animals.

The movements exerted by the brainless animals are so complex that the first impression is that they must be dependent upon conscious sensation.

It has been universally acknowledged and is plainly the case that the complicated movements of breathing, smelling, sucking, etc., which originate in the medulla, and which are more or less under the control of the will, are often purely reflex. As the actions are so much more complex than those originating in the cord, it naturally suggests itself as a possibility that the still more complex acts originating in the mesencephalon are also reflex.

It is plain that all memory and all power of spontaneous movement are blotted out by ablation of the cerebrum. The movements are simply the immediate result of some irritation of a sensory nerve. The undisturbed frog is quiet because there is no irritation of his peripheral nerves. The fish in the water is in constant movement

*The Functions of the Brain. By David Ferrier, M D. New York, George P. Putnam & Sons.

because the currents in contact with its sides furnish a ceaseless stimulus. The frog thrown into the water will, until he clambers out, swim as ceaselessly as the fish. Experiments upon the lower animals in fact do not enable us to decide as to the voluntary or involuntary character of these movements. All that can be deduced from them is a failure alike to prove the existence of consciousness or to demonstrate its absence. In man, however, pathological destruction of the crus cerebri on one side has in a number of cases allowed the survival of consciousness with separation of the cerebrum, so far as concerns one side of the body, from the mesencephalon. Under these circumstances there is absolutely no consciousness to tactile impressions upon the side of the body opposite the brain-lesion. Experiments upon monkeys have indicated a similar condition of affairs, and it would seem, therefore, that it must be acknowledged that no conscious sensation exists when the cerebral hemispheres are removed, that the actions of brainless animals are reflex in their nature. As shown by the facts already stated, the functions of the mesencephalon pertain to three things,—maintenance of equilibrium, co-ordination of locomotion, emotional impression. The maintenance of equilibrium involves the conjoint action of three separate factors: 1, a system of afferent nerves; 2, co-ordinating centre; 3, efferent tracts running to the muscle. The afferent nerves which have to do with equilibrium are in three systems: 1, organs of tactile impressions; 2, organs of visual impressions; 3, organs of auditory impressions,—the semicircular canals and their afferent nerves. A single experiment is enough to show the necessity of the tactile nerves. If, in the frog deprived of its cerebrum, the skin of the hind legs be removed, the animal at once loses its power of equilibration, and falls prostrate as soon as support is tilted. Vision is not in such close relations with equilibration as the tactile sense; still, there is much reason for believing that some influence is exerted by it. When one eye of a pigeon is suddenly put out, the bird spins for some time on its vertical axis. If a patient with paralysis of the external rectus of the eye attempt to walk with the healthy eye closed, reeling and giddiness become very marked. On the other hand, the power of the organs of hearing upon equilibration is most pronounced. The brainless frog loses entirely its equilibrium if the auditory nerves be cut, and the evolutions produced by wounds of the semicircular canals have long been the wonder of physiologists; indeed, these canals would seem to be a sort of spirit-balance for the system. On each side are six, or three pairs of them, each having an enlargement or ampulla on one end, in which is expanded the vestibular nerve. When disturbance of equilibrium occurs, the fluids in these canals of course undergo movement, and by impressions on the ampullary nerve regulate the equilibrium of the body.

The co-ordinating centre is probably the cerebellum. The experiments that appear to prove this are too well known to need repetition. The only valid objection is that which has been urged so forcibly by our townsman, Dr. S. Weir Mitchell, namely, that pigeons in which the cerebellum had been removed recovered after some months their power of co-ordination. Dr. Ferrier meets this with a very ingenious explanation. It is well known that in certain cases the will is able to replace reflex government, also that movements at first arising solely from the conscious will may, by repetition, become seemingly reflex, certainly performed without consciousness. Now, Ferrier believes that the pigeon recovers its co-ordination through a training of the muscles by the will, and thus becomes able to fly by directing attention to the various muscles concerned; the reason it tires so readily is the strain of attention necessary during the act. The negative argument in this case appears to be of value: if not in the cerebellum, where does the co-ordinating power reside? not in the pons, according to present knowledge; not in the corpora quadrigemina or in the medulla, still less in the cerebrum.

Destruction of the corpora quadrigemina and of the optic lobes, in the experiments of Dr. Ferrier upon monkeys, resulted, like those previously made upon other animals, in some disturbance of equilibrium, but no paralysis of co-ordination, and in the production of blindness and the suspension of emotional cries. As Goltz found that when, in decephalized frogs, the corpora quadrigemina are destroyed, croaking no longer occurs, and Vulpian discovered that in the rabbit the cries become mere disorders of respiration, it would seem that

these bodies are the seat of the origin of emotional cries, which is confirmed by the discovery of Ferrier that their electrical stimulation produces in monkeys a violent outcry. Such would seem to be the functions of the mesencephalon. We will hereafter consider the cerebrum.

CORRESPONDENCE.

New York, January 20, 1877.

To the Editor of the Phila. Medical Times:

DEAR SIR:—An important paper on "*The Proper Treatment for Lacerations of the Cervix Uteri*" was read at the December meeting of the County Medical Society, by Dr. Thomas Addis Emmet. It was supplementary to a paper which Dr. Emmet read before the same society two years ago, on "Laceration of the Cervix Uteri as a frequent and hitherto unrecognized cause of uterine disorder," and which has attracted a great deal of attention both at home and abroad. He had for a long time observed the fact stated in the above title, and up to the date of the reading of his first paper he had operated in about two hundred cases of lacerated cervix. Since then the operation had been performed a large number of times by others, and he had recently heard the complaint made in some cases that the procedure had not accomplished all that had been expected of it. This was due, he thought, both to the fact that entirely too much was often expected of it, and that the operation, as a rule, was not performed with proper attention to minute details, particularly as regards preparatory treatment, which is necessary in almost every instance. There is not infrequently present a subacute cellulitis of long standing, which must first be completely gotten rid of before the operation ought to be attempted. In order to effect this, nothing is so advantageous as large daily vaginal injections of hot water. Externally, on the seat of the induration, tincture of iodine or a small blister may be applied from time to time. This preparatory treatment may occupy from one to three months.

The pressure of the enlarged womb upon the tense broad ligament is often a source of irritation and trouble, and hence it is sometimes necessary to lift the uterus entirely off the floor of the pelvis, and place it in the position of anteversion, in which it is to be maintained by a pessary fitted to the parts with great care. In doing this there is danger of tilting the organ too far forward (and thus dragging upon the ligaments), and the comfort of the patient will be the best guide in the adjustment of the pessary. The gaping flaps will be found to be more nearly approximated when the uterus is anteverted. In laceration of the cervix it will usually be observed that the lips of the os are everted and eroded, and that there is cystic degeneration of the mucous follicles; the latter feeling like shot to the touch.

Though it is not necessary to puncture each one of these separately, the knife is to be freely used all over the surface of the cervix; and it is seldom that the loss of blood amounts to an ounce. Churchill's iodine is then to be painted over it, and the flaps are to be kept approximated by means of a cotton packing, to which a string should be attached for its removal after a few hours. This process is to be repeated until the cysts, as well as the erosion and congestion, have disappeared.

The parts having been thus fully prepared, the operation is now to be undertaken, in the manner described by Dr. Emmet in his former paper; and it will probably be completely successful in restoring the uterus to its normal condition, if the same care is observed during its performance and in the after-treatment. Dr. Emmet, in some instances, has found that after recovery from the operation the os and new canal have been too small, owing to the fact that he used to make the strip of undenuded tissue left to form the walls of the cervical canal of the same width throughout, without making allowance for the reduction of the size of the parts when the organ regained its normal condition. He therefore now makes the undenuded strip trumpet-shaped, and by this means the new canal formed is rendered of ample and sufficiently uniform size For paring the surfaces of the flaps he prefers the scissors to the knife, as he can thus accomplish his end more expeditiously and with less hemorrhage. In order to control the bleeding, he formerly employed a loop of wire passed through a canula and encircling the parts. Later, he used a large watch-spring, with an écraseur ratchet; but he has now found that an injection of hot water, made just previous to the operation, will cause contraction of the vessels to so great an extent that such a contrivance is generally unnecessary. In performing this operation it is requisite to coaptate the denuded parts with great accuracy, as otherwise a ridge of cicatricial tissue might be left, which would probably cause as much trouble as the previous laceration. The female is never well as long as there is any cicatricial tissue about the cervix, as it is a constant source of irritation, and is one of the most frequent of all the causes of neuralgia. In passing the sutures, Dr. Emmet uses a short round needle.

After the operation, the patient is to be kept strictly in bed for two weeks, and the catheter or bed-pan should be used, as she ought not to even sit up in bed for ten or twelve days. (The bed-pan, Dr. Emmet thinks, is often of the most essential service to the female, and he says instruction in its use ought to be a

part of the education of every one of the sex.) A warm-water injection is to be employed on the third day, and in about a week the sutures are to be removed, with great care, lest the parts should tear out. The uterus is to be well kept up in position after the operation, as, otherwise, the objects for which it is undertaken may be defeated. In conclusion, Dr. Emmet expressed the opinion that lacerations of the cervix occur much more frequently than is generally supposed, and stated that he doubted whether any woman ever passed through her first confinement without a laceration of greater or less extent taking place. These lacerations usually heal up readily; not giving any trouble unless they reach to the vaginal juncture or involve the vagina to a certain extent.

Dr. Fordyce Barker remarked that he had been much astonished when this subject was first suggested to him by Dr. Emmet, but he frankly acknowledged that he was now a convert to his views; believing him entitled to the gratitude of the entire profession for calling attention to so important a subject, which had hitherto entirely escaped observation. He then described a case which Dr. Emmet had shown him before operation. The uterus was five inches long, and the cervix was much everted and eroded. He saw it again, after the operation, and could hardly believe that it was the same organ. It now measured barely two and a half inches, and the cervix looked precisely like that of a nullipara. There was no cicatricial tissue whatever present, and not the slightest apparent evidence that any operation had been performed. On the other hand, nature's cicatrices remain indurated, and with an irregular surface; and hence we can almost invariably tell whether a woman has borne children or not by the condition of the cervix. Like Dr. Emmet, Dr. Barker doubted whether any woman ever passed through childbirth without more or less laceration. He mentioned, however, that he now saw fewer of these lacerations in his gynæcological practice than formerly, and thought this was due to the fact that careful accoucheurs at present pay more attention to the treatment of patients after confinement than formerly. Great attention to details was necessary for the success of the operation. He had seen a case in consultation in which there was local and afterwards general peritonitis resulting from it, and endangering the patient's life for several days.

He was strongly of the opinion that there had been an old cellulitis present, which the surgeon had neglected to get rid of before attempting the operation.

Dr. Peaslee stated that in forty-nine out of fifty cases the laceration is on the left side (where there is but one laceration), and this is due to the large number of times that the head is in the first position. The diagnosis of the condition is sometimes by no means easy, and yet lacerations of the cervix are of the most frequent occurrence. During the five years that he attended at the Demilt Dispensary he saw a great many of them, but he did not know what they were until Dr. Emmet pointed out the condition and its true pathology. Barnes did not know them even now, and this he thought reprehensible in an authority who writes systematic treatises on obstetrics and gynæcology. Laceration of the cervix prevents complete involution after parturition, and not only produces hypertrophy of the neck, but is also a very common cause of sterility.

Dr. Pallin differed from Dr. Peaslee in thinking the diagnosis difficult. At his gynæcological clinic at the University, he had found the condition present in about forty per cent. of all the cases treated. The subject was first suggested to him by Dr. Emmet about ten years ago, and nine years since he published an article on lacerations of the cervix, in the *St. Louis Medical and Surgical Journal*. From this he now read extracts to show his treatment at the time of the labor (if the laceration was extensive), and also at a later period.

At the last meeting of the Academy, January 18, Dr. S. S. Purple, who has again been elected President, made his inaugural address. A large portion of it was devoted to the interests of the library of the institution, and in the course of his remarks he announced the gratifying fact that during the past year 1076 books had been added to it. About 300 of these were bequeathed to the Academy by the late Dr. John O. Stone.

The patient upon whom Dr. Sabine proposed to perform gastrotomy, as related last month, died the day after the operation was attempted. It is certainly well that the attempt was not persisted in, as it is extremely doubtful whether the stomach could have been found at all after the abdominal incision had been made. At the autopsy the organ was found greatly contracted, and tucked away up under the left lobe of the liver, to which it was bound by numerous and firm adhesions. During life, it had been supposed that the stomach was probably free from disease, and this opinion had been concurred in by various eminent medical as well as surgical authorities: yet it was found that more than three-fourths of its surface was one cancerous mass. Altogether, therefore, it was fortunate that the operation was interrupted at its very outset.

During the week just closing, two well-known New York practitioners have died, Drs. Hermann Althof and George Thompson. The death of the latter is peculiarly sad, as it was caused by the swallowing of a quantity of acid nitrate of mercury by mistake, and was attended with extreme suffering.

Dr. John T. Nagle, Register of Records of Vital Statistics, reports that during the year 1876, 23,744 births, 7099 marriages, 2290 still-births, and 29,211 deaths were reported to

have occurred in this city. Of this mortality, 15,239, or 52.17 per cent., were in tenement-houses (containing four families or more); 8207, or 28.10 per cent., in houses containing three families and less (including shanties); 247, or .85 per cent., in hotels and boarding-houses; 4768, or 16.33 per cent., in institutions; 270, or .93 per cent., not stated; and 480, or 1.64 per cent., in streets, rivers, yards, etc.

One of the most interesting departments of the statistics compiled by Dr. Nagle is that in reference to the deaths of the very aged. During the year, 105 persons died over 90 years of age. Of this number, 26 died at 90, 17 at 91, 12 at 92, 2 at 93, 4 at 94, 11 at 95, 5 at 96, 2 at 97, 5 at 98, 6 at 99, 7 at 100, 1 at 101, 1 at 103, 1 at 105, 2 at 106, 1 at 109, 1 at 110, and 1 death is reported at the advanced age of 112 years. Of the 105, 52 were born in Ireland, 32 in the United States, 6 in England, 9 in Germany, 1 in Scotland, 2 in Italy, 2 in the West Indies, and 1 in Denmark. Seven were negroes. PERTINAX.

REVIEWS AND BOOK NOTICES.

TABLETS OF ANATOMY AND PHYSIOLOGY. By THOMAS COOKE, F.R.C.S. (Eng.), M.D. (Paris), Assistant Surgeon to, and Senior Demonstrator of Anatomy at, the Westminster Hospital. New York, William Wood & Co.

These tablets consist of a series of paper-bound volumes of a few pages each, which aim successfully to give the salient points of anatomy and physiology in a compact and striking form. The entire list of those published comprises a score or more of subjects. We have received those on the anatomy of the eye and ear; cranial nerves; arteries of the head and neck, and of the limbs; and bones of the skull, face, and upper limb; also those on the physiology of the circulation, respiration, and animal heat, and on the general development of the embryo.

Each tablet is built up on one page, or a double page, with such mechanical variations of type and paragraph as to show at a glance a whole subject. The condensation is one both of facts and of language, and classification is well accomplished by grouping together things that are alike. The author, who is evidently a practical anatomist and an experienced teacher, shows a familiarity with the literature of journals and transactions as well as that of text-books. After a careful examination of these tablets, we are convinced that they are deserving of the high commendation which they have already received abroad. In London they are used in connection with classes of anatomy and physiology. Although, perhaps, not absolutely adapted to the teaching of particular chairs in American medical colleges, yet under the direction of a good examiner they might be made of great value to students. To the busy practitioner they offer a ready means of refreshing the mind. C. K. M.

THE ELECTRIC BATH: ITS MEDICAL USES, EFFECTS, AND APPLIANCES. By GEO. M. SCHWEIG. New York, G. P. Putnam's Sons, 1877.

This is a most suggestive book: the only difficulty is that its suggestions are to us such intricate pathways that we cannot tread them. In spite of elaborate descriptions of bath-tubs, disquisitions on batteries, apparatuses, etc., we are unable to make out definitely how the bath is taken. We guess from the text that during the bath the patient sits with his upper back and his feet each resting against a large carbon electrode. If this be so, why a different effect should be obtained than from a similar position with the water run off, we don't understand. If this be not the arrangement of the patient, what is it? We can't solve the conundrum. We find excellent therapeutic results reported as having occurred in divers diseases; but we are also told that the author has seen the electric current cause the absorption of extract of malt diffused through the water of the bath, with excellent results in anæmia. Extract of malt is chiefly glucose and nitrogenous compounds. Here another conundrum suggests itself. What can't a man see, who has beheld the human skin turned for a half-hour every day into a gastric mucous membrane by an electric current? What must be the nature of his optics? Reader, we give it up. Perhaps some of our ophthalmological friends can discuss the question.

EPITOME OF SKIN DISEASES, WITH FORMULÆ, FOR STUDENTS AND PRACTITIONERS. By TILBURY FOX, M.D., F.R.C.P., and T. C. FOX, B.A. (Cantab.), M.R.C.S. Philadelphia, Henry C. Lea, 1876. 16mo, pp. 120.

One of the joint authors of this little work is already known to the profession as the author of one of the most popular of recent English works on dermatology. Dr. Fox's style, though diffuse and often careless, is always agreeable, and not less so in this epitome than in his more ambitious writings. Perhaps this is not altogether advantageous in the present instance, since a more concise style would have permitted the introduction of more valuable material.

As it is, the work is one well adapted to the wants of the practitioner too busy or too lazy to study up the subject of dermatology thoroughly. We would, however, warn the student against reliance upon such an epitome as this. The arrangement (alphabetical) of the specific diseases, the confused and somewhat peculiar classification, and the mingling of popular and scientific terms, all obscure the subject, and are calculated, we think, to interfere with, instead of aiding, subsequent studies. The best part of the book is the first half, in which valuable advice is given regarding the study of cutaneous disorders. A. V. H.

GLEANINGS FROM EXCHANGES.

Sudden Death from Embolism.—Dr. Fitz, of Boston, has had during the past two years an opportunity of observing the anatomical results of immediately fatal embolism in several instances, and under such circumstances as seemed to make it desirable to call renewed attention to this cause of death, already so well recognized.

The histories of these cases show that a marked feature is the sudden and unexpected nature of the attack, whether taking place during the progress of disease or in persons apparently in good health. Combined with this is the evident impossibility of furnishing any effectual relief from the distressing symptoms, except by the administration of anæsthetics, which in most cases represent merely a change in the agent eventually employed, as the evidence of carbonic-acid poisoning very rapidly becomes manifest.

That the employment of such agents may be recommended it is desirable that a relatively correct diagnosis should be made; and, although there are no symptoms pointing absolutely to embolism, there are certain suggestive ones. The comparative rarity of the occurrence in the experience of any one physician is practically likely to cause considerable doubt when the occasion finally arises, and a consideration of these symptoms becomes, therefore, all the more important.

After giving short histories of six cases, with running commentary, Dr. Fitz concludes as follows:

It may be stated that in general the symptoms of suffocation are considered as resulting from the prevention of the entrance of air into the lungs, from an obstruction to the pulmonary circulation, and from the removal of oxygen from the blood. In the differential diagnosis, in so far as it concerns the subject of this paper, it becomes therefore of importance to eliminate from the first two series the productive causes, and to combine such elements as may add positively to the diagnosis.

The suddenness of the conditions being their chief interest here, all those forms requiring time for their production may be disregarded, and there remain—

(1.) Closure of the greater air-passages or of a large number of small ones, from without or from within. (2.) Nervous lesions, particularly intracranial, affecting respiration and circulation. (3.) Obstruction to the pulmonary circulation from emboli, of blood and air particularly, fat being more gradual in its effects.

The first series may be eliminated by the physical and rational evidence of open air-passages.

When an intracranial origin of suffocation exists, the predominant early symptoms are those of cerebral anæmia, namely, pallor, relaxed muscles, disturbed hearing and vision, contracted pupils, fainting, and convulsions. Although dyspnœa may at times precede these symptoms, it is not usually of so severe a character as in the other series.

In favor of the embolic source of the disturbance is the history of an antecedent thrombus or of a disease of the heart likely to be associated with thrombosis. The primary brief disturbance of cerebral function is rapidly, at times almost instantaneously, followed by extreme dyspnœa, while later the symptoms of cerebral anæmia again become prominent.

Briefly, if in suffocation the symptoms of cerebral anæmia predominate, the source should be sought for in internal hemorrhage or in intracranial disturbance; if the thoracic symptoms are most prominent, the air-passages or the circulatory apparatus are to be questioned, and the former can most readily be excluded. The only positive evidence in favor of the latter is to be derived from the previous history of the patient.—*Boston Medical and Surgical Journal.*

Acute Idiopathic Peritonitis in Children (*Medical Record*, January 13, 1877).—The following are the conclusions of a paper on this subject by M. Gauderons:

A variety of peritonitis is met with in children, which may be called acute, essential, or idiopathic peritonitis. This peritonitis is usually general, but in some few cases is circumscribed, a more or less extensive portion of the peritoneum being involved.

It affects little girls much more frequently than boys, but is not exclusively confined to them.

It is excited by exposure to cold, or by excessive muscular action, and is especially prone to attack children between five and twelve years of age.

It may terminate in suppuration; but, although the case is then very grave, it is not entirely hopeless. In fact, the pus may make its way out through the umbilical cicatrix, and in that case recovery may be looked for. It is evident from this that suppurative peritonitis is less dangerous in the child than in the adult.

Phlegmon of the abdominal walls, or subperitoneal phlegmon, is the affection with which it is most likely to be confounded.

On the Radical Cure of Hernia (*Medical Record*, January 13, 1877).—Dr. Julius F. Miner, of the Buffalo General Hospital, expresses himself succinctly and decidedly in regard to this operation. He says, notwithstanding the reports of successful cases, his opinion is still that in femoral hernia the operation is too dangerous to be justifiable; in umbilical hernia the congenital form usually disappears in after-life; and the acquired form occurs generally in elderly stout people, who

are not fit subjects for surgical operation, The operation in practice is confined to persons of the male sex; but it ought never to be performed except upon patients "who have been properly informed of its dangers, and who deliberately choose to incur them."

Nitric Acid Injections after Lithotrity.—The following case came under the observation of R. Harrison at the Liverpool Infirmary. Examination of the patient having revealed the existence of a rounded stone two and a quarter inches in diameter in the bladder, this was crushed a number of times, but the phosphatic deposit repeatedly formed again. Analysis of the urine, two days after crushing, on one occasion showed a very large proportion of phosphates. One day later, half a pint of tepid water containing two drachms of diluted nitric acid was injected into the bladder. The urine collected the day following contained nearly twice as much phosphatic matter, showing a marked solution of the stone to have taken place. The injections were repeated nine times after operating with the lithotrite. Under this treatment the patient made a good recovery, and left the infirmary quite well. Mr. Harrison says, "The use of the acid appeared to me at once to stop any further deposition of phosphates, and to facilitate the removal of the pieces as they were broken up by the lithotrite."—*British Medical Journal.*

MISCELLANY.

It has been discovered that the shell-fish *Murex trunculus*, which yielded the famous purple of Tyre, contains largely of indigotin. A red coloring-matter present accounts for the purple.

The spread of artistic pursuits among the English medical profession is very notable. At a recent conversazione of the Harveian Society there were oil-paintings, water-color drawings, and etchings by Sir Henry Thompson, Drs. Buzzard, Blandford, and Gilbart Smith, Messrs. Prescott Hewett, Seymour Haden, Lennox Browne, Evershed, Propert, and Orrock. A highly eulogistic notice of Dr. Evershed's works in dry-point and etching appeared in a recent number of the *Gazette des Beaux-Arts*, together with engravings of two of the most recent of his highly-finished plates. Even china has not escaped. At the conversazione, a new form of lustre-ware, of original design and novel material, was exhibited by Dr. Reginald Thompson.

Optical Delusion.—Take three differently colored wafers,—red, violet, and orange,—place them upon a large piece of white paper, in a triangular form, hold the paper in a strong light, and fix the eyes upon the wafers, gazing upon them steadily for two minutes, then turn them away from the wafers to a blank part of the paper, and you will see three spectral wafers, but the colors will be different: the red wafer will now be represented by a green one, the violet by a yellow, and the orange by a blue.—*The American Laboratory.*

Chloral Cream.—A French pharmaceutical journal recommends the following as an agreeable formula for the administration of chloral: Take of finely-powdered sugar, 100 parts; chloral hydrate, 5 parts; water, 15 parts. Dissolve the chloral in the water, and triturate with the sugar in a mortar. An aromatic flavor is then obtained by the addition of the artificial essence of pine-apple or the essence of peppermint.—*Lancet and Observer*, December, 1876.

A Warning to Good Husbands.—According to Dr. Bauduy, a woman had the desire to eat her husband's flesh. This impulse became so overpowering that she murdered him, ate a portion of the body, and pickled the remainder, that she might prolong the gratification of this peculiar impulse to eat a good husband!

Medical Qualification of Women.—Miss Edith Shove having applied to be examined at the University of London for a medical degree, legal opinion has been taken; and, in the opinion of the law officers consulted, women cannot be admitted to the University examinations for medical degrees, but the Senate may, if it think fit, with the approval of the Home Secretary, alter the regulations so as to allow women to come up for examination. —*Medical Press and Circular.*

Hydrophobia communicated by Non-rabid Dogs and Cats.—Apropos of the discussion now taking place in the leading daily papers, the *Veterinary Journal* relates a case recently brought before the St. Petersburg Medical Society by Dr. Moritz, of a boy who died with well-marked symptoms of hydrophobia six weeks after being bitten by a dog, the dog up to the time of the boy's death never having exhibited any signs of rabies. A similar case was communicated to Dr. Moritz by a colleague, of a boy who died hydrophobic after being bitten by a cat, the cat remaining to all appearances well. Dr. Severin had also met with a case of a child dying who had been bitten by a dog that continued well. He had inoculated rabbits with saliva, blood, and pus taken from this child, but without producing any results.

Ambrose Paré used to say of his patient, in simple faith, "I dressed him; God cured him."

Chief of the Bureau of Medicine and Surgery of the Navy.—Upon the retirement of Surgeon-General Joseph Beale, Chief of Bureau of Medicine and Surgery of the Navy Department, on March 3, it is stated that Surgeon C. J. Stuart Wells will be promoted chief of that bureau.

TETANUS; NERVE-STRETCHING.—In a case of tetanus which occurred in the Montreal General Hospital, Dr. Drake cut down upon the sciatic nerve and stretched it. The patient was then put upon chloral hydrate and calabar bean. The operation seemed at first to afford considerable relief to the patient; but after a time the spasms returned, and he ultimately died of lockjaw.—*Medical Press and Circular.*

THE *Allgemeine Medicinische Central-Zeitung* says that, according to the last census, to every ten thousand inhabitants of Berlin there appear to be 7.98 physicians, 0.66 apothecaries, 3.31 midwives; while in the whole kingdom of Prussia to a like number of inhabitants there are 7.39 physicians, 1.26 apothecaries, and 4.94 midwives.

THE memorial-day of the late Professor Traube, of Berlin, was on Sunday, December 10, when his successor, Professor Leyden, read an obituary address at twelve o'clock in the hall of the university.

NOTES AND QUERIES.

THERE is a *picture-impostor* operating specially among physicians. He deals in very fine photographs on paper boards 22 by 28 inches, medallion or circular centres, which he represents to be elaborate India-ink drawings by himself, which he exhibited at the Centennial, and which he offers at a reduced price, as he must close them out and return to London, etc. He is a smart, plausible, genteel little fellow, and thrills you with the beauty of his wonderful productions before he displays them.

He is small and slender, say five feet four to six inches in height, dark complexion, black eyes and hair, moustache and side-whiskers not heavy, hair curly, Jewish physiognomy, large Roman or aquiline nose. He no doubt moves rapidly from town to town, as he speaks familiarly of the prominent citizens in different States. He does up a place quickly by hiring a carriage. Look out for him. His $25 to $88 pictures cost but $1.25 to $2 each, and are published by Chas. Cooper & Co., of New York.

The Philadelphia police would be glad to hear of him from any source.

PHILADELPHIA, December 26, 1876.

TO THE EDITOR OF THE PHILADELPHIA MEDICAL TIMES:

The notice of Homœopathy, in your number of December 23, has been brought to my attention.

I do not suppose my information is really desired, but it is due to the cause which, so long as I live, is likely to need defenders, to state the *facts* in relation to the subject of your article. Whether your readers are desirous to know them, whether it is politic to publicly state them, is not my province to decide, of course.

Indeed, I appreciate and would not augment the difficulty of the position occupied by the Old School faculty at Ann Arbor.

The *facts* are that the first class of the homœopathic college of the University of Michigan numbered twenty-four; the second numbers fifty,—an increase of over one hundred per cent.; the increase of the Old School department in the same time from its organization being only about sixty-eight per cent.

Secondly, the Detroit College (Homœopathy) was never, and is not now, recognized by the American Institute of Homœopathy, and is now defunct.

Thirdly, "President" Spranger and his colleagues are now seeking to make peace with the supporters of the present school.

Fourthly, about a dozen expect to graduate on March 28, none being candidates the first year. These, I need not say, are the equals of any similar number in the other school, if quizzes, etc., be a criterion; and hence not less qualified to judge of "ignorance, dishonesty, and half-truth," if such were truly any part of its teachings.

Fifthly, Canada is fairly represented among them, and will receive homœopathic reinforcement accordingly.

Sixthly (a fact, although a truism), to study "pitch" or any other subject, one must not fear defilement. The odium theologicum and the odium medicum are alike impervious diaphragms. The first is in disgrace among scientists. Can they *really* exalt the second with a good conscience?

Lastly, the "members of homœopathy" mentioned by you are, *most of them*, graduates of the Old School, and have *only* the diplomas of the University of Pennsylvania, the Jefferson and Pennsylvania Colleges, the University of New York, etc., etc., etc., to oppose to your unsupported assertion that they are ignorant and dishonest. May they not fairly retort to such public and personal allusions, *Et tu quoque?* Is "science" to such resources still confined?

The above communication was received without signature, and would therefore not have been published had its authenticity not been shown by the envelope, upon whose outside were printed the name and address of Prof. Morgan, of the Homœopathic Faculty of the University of Michigan. We are surprised that the author of it should in a medical journal attempt so transparent a fallacy as to compare the sentiments of regular physicians towards homœopaths to the *odium theologicum*. The regular profession is wedded to no theory, and is as willing to learn from homœopathy as from "old women," Choctaw Indians, or any other source. Homœopathy is demonstrably false in its theory, and what truth there is in its practice most of us desire to learn and are learning. The bitterness of feeling which exists grows chiefly not out of a scientific non-agreement with homœopaths, but out of the personal knowledge of nearly every regular practitioner of medicine that a very large proportion of *homœopaths are dishonest, and do not practise what they profess.*

PHILADELPHIA, January 20, 1877.

DOCTOR WOOD:

DEAR SIR,—As I have read a good deal of "Maternal Impression" literature of late in the *Times*, I would like to add the following well-authenticated case, which I recently learned from one of my patients:

A lady during gestation sustained a fracture of the left humerus. The child in due time was born with the left arm shrivelled and deformed. The olecranon process (from what I learned) must have been wanting, as the arm could be bent far back, just as readily, in fact, as the natural motion in the opposite direction produced by the flexors. The arm was much shorter and smaller than its fellow. The child grew to robust manhood, and was one of our most prominent citizens; but at maturity the affected arm was not larger than a child's of two years of age; and so it remained through life. It was helpless, and upon its surface near its lower third a mark was visible. This corresponded with the position of the fracture in the mother's arm.

I have observed several similar cases of maternal impressions, and in most of them it was difficult to account for the phenomena on the theory of *coincidence*.

However, no less an authority than Andrew Combe, of Edinburgh, did not have much faith in maternal impressions.

Respectfully yours,

WM. MASON TURNER, M.D.,
1428 North Seventh Street.

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY FROM JANUARY 14, 1877, TO JANUARY 27, 1877, INCLUSIVE.

MCKEE, J. C., SURGEON.—Assigned to duty as Medical Director of this Department. G. O. 1, Department of Arizona, January 1, 1877.

GIBSON, J. R., ASSISTANT-SURGEON.—Assigned to duty at Fort McPherson, Nebraska. S. O. 5, Department of the Platte, January 12, 1877.

AINSWORTH, F. C., ASSISTANT-SURGEON.—Assigned to duty at Camp Grant, A. T., as post-surgeon. S. O. 1, Department of Arizona, January 2, 1877.

PRICE, C. E., ASSISTANT-SURGEON.—Assigned to duty at Alcatraz Island, California. S. O. 8, Military Division of the Pacific and Department of California, January 17, 1877.

WOOD, M. W., ASSISTANT-SURGEON.—Assigned to duty at Camp Robinson, Nebraska. S. O. 5, c. s., Department of the Platte.

ROSSON, R. L., ASSISTANT-SURGEON.—Assigned to duty at Camp Thomas, A. T. S. O. 1, c. s., Department of Arizona.

SAMUEL Q. ROBINSON, M.D., and WM. B. DAVIS, M.D. (approved candidates), appointed Assistant-Surgeons U.S.A., to date from January 9, 1877.

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REFERENCES.—Professors Alfred Stillé, Da Costa, D. H. Agnew, F. G. Smith, Joseph Carson, J. B. Biddle; Doctors John Neill, D. G. Brinton, Edward Hartshorne; Rev. Wm. P. Breed, D.D.; Hon. Wm. A. Porter, Israel H. Johnson, Philadelphia. 217y

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